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HUMECTANT, HAIR COSMETIC COMPOSITION AND COSMETIC COMPOSITION FOR SKIN [HOSHITSUZAI, MOUHATSU KESHORYO SOSEIBUTSU OYOBI HIFUYO KESHORYO SOSEIBUTSU]

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TITLE (54): HUMECTANT, HAIR COSMETIC COMPOSITION AND COSMETIC COMPOSITION FOR SKIN

FOREIGN TITLE [54A]: HOSHITSUZAI, MOUHATSU KESHORYO SOSEIBUTSU OYOBI

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[Claims]

[Claim 1] A humectant which comprises a substance, as an active component, selected from the group consisting of a hydroxypyridone compound, a pyrithione compound, miconazole and its salt and sulfur.

[Claim 2] A hair cosmetic composition, characterized by containing the humectant of Claim 1.

[Claim 3] A cosmetic composition for skin, characterized by containing the humectant of Claim 1.

[Detailed Description of the Invention]

[Technical Field of the Invention] The present invention relates to a humectant, a hair cosmetic composition containing the humectant, and a cosmetic composition for the skin containing the humectant. More specifically, the present invention relates to: a humectant which is applied to the skin, such as the scalp, in order to increase the water content at the applied area, thereby providing moisture; a hair cosmetic composition which contains the humectant as a component and is continuously applied to the scalp and hair in order to gradually increase the water content in the keratin of the scalp without causing problems with the hair, such as a sticky feeling, thereby improving the condition of the scalp, with the effect being

maintained for an extended period of time; and a cosmetic composition for the skin which contains the humectant as a component.

[0002]

[Prior Art] It has been conventional practice that hair cosmetics are used for various purposes, such as cleansing the hair and scalp, moisturizing hair, and preventing and inhibiting the occurrence of dandruff and itching. Various compounds corresponding to the intended purpose are added to the cosmetics. For example, there are many cases where hydroxypyridone compounds, pyrithione compounds, miconazole and its salt and sulfur are added to hair cosmetics as anti-dandruff and antiitching agents (see, for example, Japanese Unexamined Patent Publication No. Showa 54-98343, Japanese Unexamined Patent Publication No. Showa 57-209210, Japanese Unexamined Patent Publication No. Heisei 08-3042, Japanese Unexamined Patent Publication No. Showa 56-150008 and Japanese Unexamined Patent Publication No. Heisei 11-269043). Further, some of the abovementioned components are also proposed as components for hair cosmetics for providing a deodorizing effect (Japanese Unexamined Patent Publication No. Heisei 10-147795), an effect on improving the finish performance (WO 99/07333), or an effect on improving the storage stability (Japanese Unexamined Patent Publication No. Heisei 05-92913). Further, it has also been

proposed that various other compounds are used as humectants and cosmetics for maintaining the water content of the skin and hair and thus providing moisture (see, for example, Japanese Unexamined Patent Publication No. Shōwa 61-5005, Japanese Unexamined Patent Publication No. Shōwa 59-1755989, and Japanese Unexamined Patent Publication No. Shōwa 62-1989713). However, including these proposals, the effects of the conventional cosmetics containing a humectant are only transient and thus not persistent. In the case where the purpose is to moisturize the scalp, the application of the humectant to the scalp works on the hair as well. Hence, the use of the conventional humectants makes the hair sticky, thereby impairing the usability.

[Problems to Be Solved by the Invention] The object of the present invention is to provide a humectant which overcomes the drawbacks of the conventional humectants, has a persistent moisturizing effect, prevents the problems for the hair, such as stickiness, when applied to the scalp, increases the water content in the keratin of the dry scalp, and gradually improves the scalp conditions, thereby retaining the moisturizing effect for an extended period of time, and also to provide a hair cosmetic composition containing the humectant. Further, the object of the present invention is also to provide a cosmetic

composition for the skin which contains the humectant and provides the excellent moisturizing effect on the skin.

[Means of Solving the Problem and Embodiments of the Invention] The present inventors conducted intensive research in order to solve the above-mentioned problems and, as a result, discovered: that a substance which was selected from the group consisting of a hydroxypyridone compound, a pyrithione compound, miconazole and its salt and sulfur had effects as a humectant; when the substance in a hair cosmetic composition as a humectant for the scalp as described in the following embodiments was used on the scalp, the problems could be prevented, such as the causing of a sticky feeling on the hair, the water content in the keratin of the dry scalp is increased, thereby improving the condition of the scalp; and the continuous use of the hair cosmetic composition was capable of recovering the moisturizing ability of the scalp itself.

[0005] More specifically, recently, since coloring and bleaching hair have already been habitually practiced, opportunities to chemically damage the hair have increased more than before particularly for young women. In view of the above-mentioned situation, the present inventors have conceived an idea that maintaining the health of the scalp was a requirement for restoring the healthy hair. The conditions of the scalp surface

of 20 healthy volunteers were observed visually and with a microscope. As a result, it was found that 6 of the volunteers had powdery scales in the vicinity of hair roots and, further, 2 of them had the same scales and cracks on the portions other than the vicinity of the hair roots. Hence, it was found that ordinary people who did not suffer from a severe occurrence of dandruff often had low water content in the keratin (skin dryness). The present inventors therefore initiated the investigation in order to remedy this problem. When compositions containing various agents, such as various humectants, were prepared and were used for subjects with a dry scalp in a conventional manner in order to observe the condition of the scalp surface and to measure the water content in the keratin. As a result, only compositions containing a substance selected from the group consisting of a hydroxypyridone compound, a pyrithione compound, a miconazole and its salt and sulfur had a tendency to persistently improve the condition of the scalp without causing problems with the usability. The present invention has thus been completed. In addition, the present inventors discovered that the addition of the humectant in a cosmetic composition for the skin had an excellent moisturizing effect on the skin.

/2

[0006] Hence, the present invention provides: (1) a humectant which comprises a substance, as an active component, selected from the group consisting of a hydroxypyridone compound, a pyrithione compound, miconazole and its salt and sulfur; (2) a hair cosmetic composition which is characterized by containing the humectant of the item (1); and (3) a cosmetic composition for skin which is characterized by containing the humectant of the item (1).

[0007] The present invention is described in greater detail below. The hydroxypyridone compound which is used as an active component for the inventive humectant is a 1-hydroxy-2-pyridone compound which is denoted by the following formula (I). The pyrithione compound is denoted by the following formula (II). The miconazole and its salt are compounds which are denoted by the following formulas (III) and (IV).

[Chemical Formula 1]

[0008]

[0009] (wherein R^1 denotes an alkyl group having 1 to 17 carbon atoms, an alkenyl group having 2 to 17 carbon atoms, a cycloalkyl group having 5 to 8 carbon atoms, a bicycloalkyl

group having 7 to 9 carbon atoms, a cycloalkyl-alkyl group in which the cycloalkyl has 5 to 8 carbon atoms and the alkyl group 1 to 4 carbon atoms (wherein the hydrogen atoms in the cycloalkyl group may be partially substituted with alkyl groups having 1 to 4 carbon atoms), an aryl group having 6 to 14 carbon atoms, an aralkyl group in which the aryl group has 6 to 14 carbon atoms and the alkyl group has 1 to 4 carbon atoms, an aryl alkenyl group in which the aryl group has 6 to 14 carbon atoms and the alkenyl group has 2 to 4 carbon atoms, an aryloxy alkyl group in which the aryl group has 6 to 14 carbon atoms and the alkyl group has 1 to 4 carbon atoms, an aryl mercapto alkyl group, a benzhydryl group, a phenyl sulfonyl alkyl group in which the alkyl group has 1 to 4 carbon atoms, a furyl group, or an furyl alkenyl group in which the furyl group or alkenyl group has 2 to 4 carbon atoms. In this case, hydrogen atoms in the above-mentioned arvl group may be substituted with an alkyl group having 1 to 4 carbon atoms, an alkoxy group having 1 to 4 carbon atoms, a nitro group, a cyano group or a halogen atom. R2 denotes a hydrogen atom, an alkyl group having 1 to 4 carbon atoms, an alkenyl group having 2 to 4 carbon atoms, an alkynyl group having 2 to 4 carbon atoms, a halogen atom, a phenyl group or a benzyl group. X denotes an organic salt group, an alkali metal ion, an ammonium ion or a divalent to tetravalent cation). [0010] Specific examples of compounds which can be denoted by the above formula (I) include the following compounds and salts thereof.

[0011] 1-hydroxy-2-pyridone, 1-hydroxy-4-methyl-2-pyridone, 1hydroxy-6-methyl-2-pyridone, 1-hydroxy-4,6-dimethyl-2-pyridone, 1-hydroxy-4-methyl-6-heptyl-2-pyridone, 1-hydroxy-4-methyl-6-(1ethylpentyl)-2-pyridone, 1-hydroxy-4-methyl-6-(2,4,4-trimethyl pentyl)-2-pyridone, 1-hydroxy-4-methyl-6-undecyl-2-pyridone, 1hydroxy-4-methyl-6-propenyl-2-pyridone, 1-hydroxy-4-methyl-6octenyl-2-pyridone, 1-hydroxy-4-methyl-6-(2,2-dibutyl-vinyl)-2pyridone, 1-hydroxy-4-methyl-6-(cyclohexenilidene-methyl)-2pyridone, 1-hydroxy-4-methyl-6-cyclohexyl-2-pyridone, 1-hydroxy-4-methyl-6-(methyl-cyclohexyl)-2-pyridone, 1-hydroxy-4-methyl-6-(2-bicyclo[2,2,1]heptyl)-2-pyridone, 1-hydroxy-4-methyl-6-[2-(dimethyl cyclohexyl)-propyl]-2-pyridone, 1-hydroxy-4-methyl-6-(4-methyl-phenyl)-2-pyridone, 1-hydroxy-4-methyl-6-(3-methylphenyl) -2-pyridone, 1-hydroxy-4-methyl-6-(4-tertbutyl-phenyl) -2pyridone, 1-hydroxy-4-methyl-6-(3-methyl-4-chlorophenyl)-2pyridone, 1-hydroxy-4-methyl-6-(3,5-dichlorophenyl)-2-pyridone, 1-hydroxy-4-methyl-6-(3-bromo-4-chlorophenyl)-2-pyridone, 1hydroxy-4-methyl-6-(4-methoxystyryl)-2-pyridone, 1-hydroxy-4methyl-6-[1-(4-nitrophenoxy)-butyl]-2-pyridone, 1-hydroxy-4methyl-6-(4-cyanophenoxymethyl)-2-pyridone, 1-hydroxy-4-methyl-6-(phenylsulfonylmethyl)-2-pyridone, 1-hydroxy-4-methyl-6-[1-(4chlorophenylsulfonyl)-butyl]-2-pyridone, 1-hydroxy-4-methyl-6benzyl-2-pyridone, 1-hydroxy-4-methyl-6-(2,4-dimethylbenzyl)-2pyridone, 1-hydroxy-4-methyl-6-(tertiary butyl-benzyl)-2pyridone,

/3

1-hydroxy-4-methyl-6-(2-chlorobenzyl)-2-pyridone, 1-hydroxy-4methyl-6-(4-chlorobenzyl)-2-pyridone, 1-hydroxy-4-methyl-6-(2,5dichlorobenzyl) -2-pyridone, 1-hydroxy-4-methyl-6-(4bromobenzyl) -2-pyridone, 1-hydroxy-4-methyl-6-(phenoxymethyl) -2pyridone, 1-hydroxy-4-methyl-6-(3-methylphenoxy-methyl)-2pyridone, 1-hydroxy-4-methyl-6-(4-secondary butyl phenoxymethyl)-2-pyridone, 1-hydroxy-4-methyl-6-(2,4,5trichlorophenoxy-methyl)-2-pyridone, 1-hydroxy-4-methyl-6-(4bromophenoxy-methyl)-2-pyridone, 1-hydroxy-4-methyl-6-(4chlorophenyl mercapto-methyl)-2-pyridone, 1-hydroxy-4-methyl-6-(4-methyl phenyl mercapto-methyl)-2-pyridone, 1-hydroxy-4methyl-6-(2-naphthyl)-2-pyridone, 1-hydroxy-4-methyl-6benzhydryl-2-pyridone, 1-hydroxy-4-methyl-6-furyl-2-pyridone, 1hydroxy-4-methyl-6-(furyl vinyl)-2-pyridone, 1-hydroxy-4-methyl-6-styryl-2-pyridone, 1-hydroxy-4-methyl-6-(phenyl butadienyl)-2pyridone, 1-hydroxy-4-phenyl-6-methyl-2-pyridone, and 1-hydroxy-4,6-diphenvl-2-pyridone.

[0012] These compounds can be used as salts. For example, these compounds can be preferably used as salts with an organic amine.

Specific examples of such organic amines include ethanolamine, diethanolamine, N-ethyl ethanol amine, N-methyl-diethanolamine, triethanolamine, diethylamino-ethanol, 2-amino-2-methyl-npropanol, dimethylaminopropanol, 2-amino-2-methyl-propandiol, tri-isopropanol amine, ethylene diamine, hexamethylene diamine, morpholine, piperidine, cyclohexyl amine, tributyl amine, dodecyl amine, N,N-dimethyl-dodecylamine, stearyl amine, oleyl amine, benzyl amine, dibenzyl amine, N-ethyl benzyl amine, dimethyl stearyl amine, N-methyl-morpholine, N-methyl piperidyl, 4-methyl cyclohexyl amine, and N-hydroxy ethyl-morpholine. [0013] Further, the hydroxypyridone compound which is used in the present invention can be a salt with an inorganic ion. Examples of such salts include alkali metal salts, such as sodium salts and potassium salts, and alkali earth metal salts, such as ammonium salts, magnesium salts and calcium salts. Further, salts with a divalent to tetravalent cation, such as zinc salts, aluminum salts and zirconium salts can also be used. [0014] In particular, piroctone olamine which is denoted by the following formula can be used as the 1-hydroxy-2-pyridone compound which is denoted by the above formula (I).

[0015]

[Chemical Formula 2]

[0016]

[Chemical Formula 3]

(In the above formula (II), M denotes a polyvalent metal atom, and m denotes the atomic valence of M).

[0017] In the above formula (II), M denotes a polyvalent metal atom, such as a sodium atom, a magnesium atom and a zinc atom. Specific examples of compounds which can be denoted by the above formula (II) include zinc pyrithione, magnesium pyrithione, and sodium pyrithione.

[0018]

[Chemical Formula 4]

/4

(In the above formula (IV), Y denotes inorganic acids, such as hydrochloric acid, vitriolic acid, phosphoric acid and nitric acid, and organic acids, such as lactic acid, tartaric acid, propionic acid, lactic acid, citric acid, salicylic acid, succinic acid and malic acid).

[0019] The inventive humectant contains substances, as active components, selected from the group consisting of hydroxypyridone compounds, pyrithione compounds, miconazole and its salt, and sulfur singly or in combinations of two or more.

[0020] The humectant can be formulated into a cosmetic composition by being mixed with compounding materials which are commonly used in conventional emulsifying compositions, such as surfactants, oil components, alcohols, humectants other than the inventive humectant, thickening agents, preservatives, antioxidants, chelate agents, pH adjustors, perfumes, colorants,

ultraviolet absorbers and diffusers, vitamins, amino acids and water, and stirring the resulting mixture. The inventive humectant, which prevents the hair from becoming sticky as described above, can be effectively used as a humectant for the scalp. By incorporating the above-mentioned compounds which are conventionally used in hair cosmetics into the inventive humectant, the inventive hair cosmetic composition can be obtained. Further, the components which can be incorporated into the inventive hair cosmetic composition are not limited to the above-mentioned components.

[0021] The proportion of the inventive humectant in the inventive hair cosmetic composition is not particularly limited, but can be suitably determined according to the dosage form of the composition or the like. In general, the proportion is in a range of from 0.01 mass% to 5 mass%, preferably in a range of from 0.01 mass% to 2 mass%, and more preferably in a range of from 0.03 mass% to 2 mass%. If the proportion is insufficient, the intended effect of the present invention may not be sufficiently obtained, whereas if the proportion is excessive, not only is it economically disadvantageous but also it is difficult to maintain the stability as a preparation. Further, in the case where the humectant is used as a common humectant for the skin to be incorporated into a cosmetic composition other than the hair cosmetic composition, such as a cosmetic

composition for the skin, it is generally preferred that the proportion is in a range of from 0.01 mass% to 1 mass%, for the same reason as above.

[0022] The inventive hair cosmetic composition can be used as a hair shampoo, a hair rinse, a hair conditioner, a hair treatment, a hair styling agent, a hair tonic, a hair growth stimulating agent or the like in the dose of each preparation in the conventional manner. In particular, the continuous use of the inventive humectant maintains the moisturizing effect for an extended period of time. Hence, it is preferred that the inventive hair cosmetic composition using the inventive humectant as a humectant for the scalp is continuously used on the scalp for at least a period of from 3 days to 2 weeks.

Further, the inventive cosmetic composition for the skin can also be formulated into a cosmetic composition for the skin in various dosage forms and can be used in the dose of each formulation in a conventional manner.

[0023]

[Effect of the Invention] In accordance with the present invention, by using a substance, as an active component for a humectant, selected from the group consisting of a hydroxypyridone compound, a pyrithione compound, miconazole and its salt and sulfur, the resulting humectant has a persistent moisturizing effect which is superior to conventional products.

In particular, by using the humectant as a humectant for the scalp, a hair cosmetic composition which prevents various problems, such as causing sticky feeling on the hair, increase the water content of the keratin of the dry scalp, and improves the moisturizing effect of the scalp itself by the continuous use can be obtained. In addition, by incorporating the humectant, a cosmetic composition for the skin having excellent moisturizing effect can be obtained.

[0024]

[Embodiments] The present invention is described in greater detail below with reference to the following embodiments and comparative example, but

/5

the present invention is not restricted to these embodiments in any way. The composition (compounding amount) of the hair cosmetic composition and cosmetic composition for the skin are expressed by mass% in the following embodiments and comparative examples.

[0025] [Embodiments 1 to 8 and Comparative Examples 1 to 11]

Hair cosmetic compositions of Embodiments 1 to 8 and Comparative

Examples 1 to 11 shown in Table 1 and Table 2 were prepared by

the following method. The improvement effect on rough skin,

moisturizing effect on the scalp and finish performance of each

of the resulting hair cosmetic compositions were evaluated by

the following evaluation methods. The results are collectively shown in Table 1 and Table 2.

[0026] (1) Preparation of Hair Cosmetic Composition Various solvents and oil components, such as emulsifiers, were dissolved by being heated at a temperature ranging from 40 degrees Celsius to 80 degrees Celsius in order to prepare an oil phase. Aqueous components were dissolved by being heated at a temperature ranging from 25 degrees Celsius to 80 degrees Celsius in order to prepare an aqueous phase. The humectants used in respective embodiments and comparative components used in respective comparative examples were added to either the oil phase or the aqueous phase depending on the solubility. The oil phase was then added to the aqueous phase. The resulting mixture was stirred using an agi homo mixer, thereby obtaining a homogeneous O/W type emulsion. The resulting emulsion was further stirred using a paddle mixer, and was then slowly cooled to room temperature, thereby obtaining a hair cosmetic composition (sample).

[0027] (2) Evaluation Method

The improvement effect on rough skin and the moisturizing effect on the scalp were evaluated by the following methods. 20 panellists who had rough skin on the scalp used the sample composition and a placebo (substrate only) as hair rinses on each half portion of the scalp by a conventional method, and the

following two evaluations were conducted at the initiation of the experiment and after 2 weeks of continuous use.

[0028] 1) Improvement Effect on Rough Skin: Observation and Evaluation of the Condition of the Scalp Surface
Hair on the two portions comprising left and right portions of the scalp of the panelist (left-right symmetry; approximately 2 cm²) were shaved in order to observe the condition of the scalp surface visually and with a microscope. The improvement effect on rough skin was rated according to the following rating scale so as to be evaluated.

[0029] (Rating Scale)

Significantly Effective: Rough skin disappeared.

Effective: Rough skin was inhibited.

Slightly Effective: Rough skin was slightly inhibited.

Not Effective: No change in the rough skin condition was observed.

[0030] (Evaluation)

: The number of subjects who rated "significantly effective",

"effective" or "slightly effective" was 80% or more.

O: The number of subjects who rated "significantly effective",

"effective" or "slightly effective" was 50% or more and less than 80%.

- A: The number of subjects who rated "significantly effective",
 "effective" or "slightly effective" was 30% or more and less
- "effective" or "slightly effective" was 30% or more and less than 50%.
- x: The number of subjects who rated "significantly effective", "effective" or "slightly effective" was less than 30%.
- [0031] 2) Scalp Moisturizing Effect: Measurement of the Water Content in the Keratin on the Skin Surface

The water content in the keratin on the skin surface of the site under evaluation was measured with a water content measurement device (SKICOS 301, manufactured by Amique Group Co). The measurement was conducted in a constant environment at a temperature of 25 degrees Celsius and a relative humidity of 40%. The scalp moisturizing effect was rated according to the following rating scale so as to be evaluated. The term "substrate" as used herein refers to a composition without containing the inventive humectant or comparative components, said composition been prepared by using only substrate components shown in Table 1 or Table 2.

[0032] (Rating Scale)

Significantly Effective: The measurement value is 200% or more as compared with the site with the substrate.

Effective: The measurement value is 150% or more and less than 200% as compared with the site with the substrate.

Slightly Effective: The measurement value is 110% or more and less than 150% as compared with the site with the substrate. Not Effective: The measurement value is less than 110% as compared with the site with the substrate.

[0033] (Evaluation)

than 50%.

- : The number of subjects who rated "significantly effective",
- "effective" or "slightly effective" was 80% or more.
- O: The number of subjects who rated "significantly effective", "effective" or "slightly effective" was 50% or more and less than 80%.
- A: The number of subjects who rated "significantly effective", "effective" or "slightly effective" was 30% or more and less
- x: The number of subjects who rated "significantly effective", "effective" or "slightly effective" was less than 30%.
- [0034] The finish performance was evaluated by the following method. 30 female panelists in their 20s to 30s (hair length: short, semi-long and long) were subjected to an actual use evaluation. The smoothness and non-stickiness after drying hair were evaluated by the following rating scale.

[0035] (Rating Scale)

0: The number of panelists who rated "good" was 25 out of 30.

O: The number of panelists who rated "good" was from 15 to 24 out of 30.

 $\mbox{\ensuremath{\triangle}:}$ The number of panelists who rated "good" was from 5 to 14 out of 30.

 \mathbf{x} : The number of panelists who rated "good" was less than 5 out of 30.

[0036]

[Table 1]

/6

					Embod	iment			
		1	2	3	4	5	6	7	8
	Piroctone olamine	1			0.01				0.3
Humec	Zinc pyrithione	1	1				2	0.05	
ta:	Miconazole nitrate		0.5		0.75	1		3	
щ.	Sulfur			2				1	
	Glycerin								
벍	Sorbitol								
ē	Polyglycerin (average								
Component	degree of polymerization 6)								
ပိ	Proline								
ā	Glycine								
17	Urea								
Comparative	Sodium pyrrolidine								
	carboxylic acid								
l iii	Sodium lactate								
ပိ	Sodium hyaluronate								
	Hydroxypropyl chitosan								
	4-guanidinobutyl lauramide acetate	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	N-palm oil fatty acid acyl-dl-arginine ethyl	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
ate	Cetyltrimethyl ammonium chloride	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Substrate	Stearyltrimethyl ammonium chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Su	Behenyltrimethyl ammonium chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Distearyldimethyl ammonium chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Cetanol	1	1	1	1	1	1	1	1

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	Stearyl alcohol	1	1	1	1	1	1	1	1
	Behenyl alcohol	1	1	1	1	1	1	1	1
	Polyoxyethylene (POE 20) lauryl ether	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Sorbitan monostearate	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Glyceryl monostearate	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Dimethyl polysiloxane (5,000,000 cst)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Dimethyl polysiloxane (1,000,000 cst)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Dimethyl polysiloxane (100,000 cst)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Dimethyl polysiloxane (39 cst)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	Preservative	q.s.							
	Acetic acid	q.s							
	Glycolic acid	q.s							
	Phosphoric acid	q.s							
	Perfume	q.s							
	Water	Bal.							
Tot	al	100	100	100	100	100	100	100	100
sult	Improvement effect on rough skin						0		
11 %	effect		0						
I Sal	Finished smoothness		0				0		0
·	Finished non-stickiness				0	0	0		

[0037]

[Table 2]

/7

					(Compara	tive I	Exampl	е			
		1	2	3	4	5	6	7	8	9	10	11
t Humecta	Piroctone olamine											
	Zinc pyrithione											
	Miconazole											
	nitrate											
	Sulfur											
	Glycerin	1										
e II	Sorbitol		1									
Component	Polyglycerin											1
ם	(average degree			1								
ပိ	of polymerization											
d)	6)											
ive	Proline				1							
at t	Glycine					1						
	Urea						1					2
Ω,	Sodium											
Compar	pyrrolidine				1			1				
0	carboxylic acid		l		1		l					

	0 1: 1 1 1								-			
	Sodium lactate								1			
	Sodium									1		
	hyaluronate											
	Hydroxypropyl										1	
	chitosan											
	4-guanidinobutyl	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	lauramide acetate											
	N-palm oil fatty	l	١		١		١				١	
	acid acyl-dl-	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	arginine ethyl											
	Cetyltrimethyl	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	ammonium chloride						***				***	
	Stearyltrimethyl	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	ammonium chloride	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
	Behenyltrimethyl	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	ammonium chloride	0.1	0.1	0.1	0.1	•	0.1	0.1	0.1	0.1	0.1	0.1
	Distearyldimethyl	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	ammonium chloride											
	Cetanol	1	1	1	1	1	1	1	1	1	1	1
	Stearyl alcohol	1	1	1	1	1	1	1	1	1	1	1
	Behenyl alcohol	1	1	1	1	1	1	1	1	1	1	1
	Polyoxyethylene											
	(POE 20) lauryl	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
a)	ether											
Substrate	Sorbitan	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
t l	monostearate	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
ps	Glycervl											
Su	monostearate	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Dimethyl											
	polysiloxane	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	(5,000,000 cst)		***		***		***				***	* * *
	Dimethyl											
	polysiloxane	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	(1,000,000 cst)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	"."
	Dimethyl											
	polysiloxane	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	(100,000 cst)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Dimethyl											
	polysiloxane (39	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
	cst)	1.5	1.0	1.5	1.0	1.3	1.5	1.5	1.5	1.5	1.5	1.3
	Preservative			q.s.	q.s.						q.s.	
	Acetic acid	q.s.	q.s.			q.s.	q.s.	q.s.	q.s.	q.s.		q.s.
		q.s										
	Glycolic acid	q.s										
	Phosphoric acid	q.s										
	Perfume	q.s										
	Water	Bal.										
Tot		100	100	100	100	100	100	100	100	100	100	100
	Improvement	l	l _	1	l _	_		1	_	l _		_
lg l	effect on rough			×				×			×	
는 나	skin											
Evaluation Result	Scalp											
Lu	moisturizing				×		×		×		×	×
Na W	effect	L	L	L	L		L	L	L			
白	Finished	П	П	П	П	0	П	П	П	П	п	П
	smoothness	ш				U				ш		

Finished non- stickiness	×	×	×	×	×	×	×	×	×

[0038] [Embodiment 9] A hair conditioner having the following composition was produced by a conventional method.

Piroctone olamine	0.3	
4-guanidinobutyl lauramide acetate	0.8	
N-alkyloxy hydroxypropyl-L-arginine hydrochloride	1.0	
Pentaglyceryl dilaurate	0.5	
Polyglycerin (average degree of polymerization 6)	0.2	
Behenic acid diethylaminoethylamide	0.3	
Dimethyl silicone 1,000,000 cst/25°C	1.0	
Dimethyl silicone 100,000 cst/25°C	1.0	
Dimethyl silicone 50 cst/25°C	0.3	
Glycine	0.7	
Cetanol	0.5	
Behenyl alcohol	1.8	
Oleyl alcohol	0.3	
Oleic acid	0.2	
Isostearic acid	0.2	
Trimethyl glycine	0.2	
Arginine	0.3	
		/8
Cysteine	0.3	
Glycerin monostearate	0.1	

Sorbitan monolaurate	0.1
Glycolic acid	0.2
Phosphoric acid	q.s.
Methyl p-hydroxybenzoate	q.s.
Propyl p-hydroxybenzoate	q.s.
Perfume	q.s.
Refined water	balance
Total	100.0
Properties:	
pH: 7.5	
Particle diameter: 0.5 μm to 5 μm	
Viscosity: 4500 cp/25°C	
[0039] [Embodiment 10] A hair treatment having the following the followi	lowing
composition was produced by a conventional method.	
Zinc pyrithione	0.75
4-guanidinolauramide acetate	1.5
N-palm oil fatty acid acyl-L-arginine ethyl	0.5
Dimethyl silicone 10,000,000 cst/25°C	0.5
Dimethyl silicone 100,000 cst/25°C	1.0
Dimethyl silicone 30 cst/25°C	1.5
Cetanol	4.0
Behenyl alcohol	3.0
Stearyl alcohol	2.0
Isostearic acid	0.2

Glycerine	3.0
Propylene glycol	5.0
Glycerin monostearate	0.1
Sorbitan monolaurate	0.1
Glycerin monolaurate	0.1
Glycolic acid	q.s.
Methyl p-hydroxybenzoate	q.s.
Propyl p-hydroxybenzoate	q.s.
Perfume	q.s.
Refined water	Balance
Total	100.0
Properties:	
pH: 6.4	
Viscosity: 130 cp/25°C	
Particle diameter: 1 μm to 5 μm	
[0040] [Embodiment 11] A hair essence having the following	owing
composition was produced by a conventional method.	
Miconazole nitrate	0.5
Sulfur	0.5
N-alkyloxy hydroxypropyl-L-arginine hydrochloride	1.0
Hexaglyceryl distearate	0.3
Polyoxyethylene-modified dimethyl polysiloxane (viscos	sity 200
cst/25°C)	2.0
Cetanol	0.5

Behenyl alcohol	0.2	
Stearyl alcohol	0.2	
		/9
Isostearic acid	0.2	
Oleyl oleate	0.2	
Glycine	0.8	
Trimethyl glycine	0.2	
Arginine	0.3	
Cysteine	0.3	
Glycerin monostearate	0.1	
Sorbitan monolaurate	0.1	
Polyoxyethylene (40) hydrogenated castor oil	1.0	
Phosphoric acid	q.s.	
Methyl p-hydroxybenzoate	q.s.	
Propyl p-hydroxybenzoate	q.s.	
Benzoic acid	q.s.	
Perfume	q.s.	
Refined water	Balance	
Total	100.0	

Properties:

pH: 5.8

Particle diameter: 0.01 μm to 0.1 μm

Viscosity: 6500 cp/25°C

Appearance transparent gel

[0041] The hair cosmetic composition obtained in Embodiments 9. 10 and 11 were novel hair cosmetics which increased the water content in the keratin of the dry scalp without causing problems for the hair, such as stickiness, and gradually improved the moisturizing ability of the scalp itself by continuous use. [0042] Next, cosmetic compositions for the skin of Embodiments 12 to 26 and Comparative Examples 12 to 20 were prepared according to the compositions shown in Tables 3 to 6 by conventional methods corresponding to each preparation. The improvement effect on rough skin, skin moisturizing effect, smoothness during use and stickiness during use of the resulting cosmetic compositions for the skin were evaluated in accordance with the same evaluation methods described in Embodiment 1. The results are shown in Table 3 to Table 6. In the following tables, the total amount of the components is 100 mass%.

[0043]

[Table 3]

/10

Cream								
Component		Er	nbodime	Comparative Example				
	12	13	14	15	16	12	13	14
Piroctone olamine	0.20	-	0.15	-	0.20	-	-	-
Zinc pyrithione	-	0.10	-	-	0.10	-	-	-
Miconazole nitrate	-	0.05	-	0.20	-	-	-	-
Glycerin	-	-	-	-	-	5.00	-	3.00
Trimethyl glycine	-	-	-	-	-	1.00	-	-
L-proline	-	-	-	-	-	-	1.00	0.50
Bentonite	0.50	-	-	1.00	-	-	1.00	-
Saponite	-	1.20	-	-	-	0.50	-	2.00
Natural hectorite	-	-	0.08	0.80	-	0.10	-	-

Decaglyceryl	_	_	2.00	_	_	1.00	_	_
monostearate			2.00			2.00		
Tetraglyceryl	1.00	3.00	_	_	3.20	2.00	-	3.00
monoisostearate	2.00	0.00			0			0.00
Hxaglyceryl	0.80	_	_	0.80	_	_	0.80	_
monostearate	0.00			0.00			0.00	
Diglyceryl oleate	-	-	0.50	-	-	-	-	0.50
Glyceryl monostearate	1.50	-	-	-	-	-	-	1.50
Sorbitan monostearate	-	1.00	-	2.50	1.00	-	2.00	-
POE (40) glyceryl	1.50	1.00	_	0.80	0.50		2.00	0.50
monostearate	1.50	1.00		0.00	0.50		2.00	0.50
POE (100) hydrogenated	_	_	1.00	_	_	2.00	_	_
castor oil			1.00			2.00		
Solid paraffin	-	-	-	1.00	3.00	-	1.00	-
Cetyl palmitate	1.00	-	2.00	1.20	-	1.00	-	-
Isopropyl palmitate	1.00	1.00	-	2.00	-	2.00	-	1
Isocetyl isostearate	-	2.00	1.00	-	-	-	2.00	1.20
2-hexyldecyl palmitate	-	-	-	-	2.00	-	1.00	-
Cyclic silicon	-	-	1.00	5.00	-	3.0	-	-
Dimethyl silicone	1.00	5.00	-	0.50	-	-	5.00	1.00
Vegetable squalane	-	10.00	7.00	-	5.00	3.00	-	-
Squalane	8.00	-	-	3.00	-	-	7.00	5.00
Jojoba oil	3.00	2.00	2.00	-	3.50	-	-	3.00
Almond oil	-	1.00	1.00	-	-	-	1.00	-
Sunflower oil	-	1.00	-	-	1.00	-	1.00	-
Cetostearyl alcohol	3.00	-	5.00	-	-	2.00	-	1.00
Stearyl alcohol	-	3.00	-	5.00	-	-	5.00	-
Behenvl alcohol	0.50	-		-	3.00	3.00	-	2.50
Carboxy vinyl polymer	0.00				0.00	0.00		2100
(molecular weight	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
1,000,000 to 1,500,000)							****	
Xanthan gum	0.30	0.10	0.10	-	0.20	0.10	_	0.20
Propyl paraben	0.10	0.10	0.10	0.10	0.10	0.10	0.10	010
Methyl paraben	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
p-hydroxy cinnamate-2-								
methylbenzoyl methane	-	-	-	0.10	0.10	-	-	0.10
4-T-Rt-4'-								
methoxybenzoyl methane	-	-	-	0.25	0.25	-	-	0.25
Citric acid	trace							
Sodium citrate	trace							
EDTA-2Na	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Triisopropanol amine	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Purified water	bal.							
Perfume	trace							
Evaluation result	trace							
Improvement effect on								
		0		0	0		0	×
rough skin		-			-			
Scalp moisturizing								×
effect	-		-		r^a			
Finished smoothness		0		0		×	×	×
Finished non-stickiness			0			×	×	

[0044]

Milky lotion

17	Component	Ei	mbodime	nt	Comparative Example		
Piroctone clamine		17	18	19			
Zinc pyrithione	Piroctone olamine	0.20			-		
Miconazole nitrate		-	0.10		-	-	
Signature -		-	0.05		-	-	
Dipropylene glycol		-	-	-	0.50	-	
Bentonite		-	-	-		1.00	
Hexaglyceryl monostearate			0.80	-	-	-	
Decaglyceryl trisostearate	Montmorillonite	1.00	-	-	-	0.50	
Decarlyceryl trisostearate	Hexaglycervl monostearate	-	1.20	-	1.00	-	
Diglyceryl monolaurate		0.50	-	-	-	-	
Diglyceryl monostearate		-	0.50	-	-	0.80	
Decaglyceryl monostearate		-	-	1.50	0.50	-	
POE (20) sorbitan monostearate		1.60	-	-	-	-	
POE (100) hydrogenated castor oil		3.00	-	-	-	2.00	
Sorbitan sesquioleic acid ester		-	-	1.00	1.00	-	
Isopropyl myristate		-	3.00	-	-	-	
2-hexyldecyl isostearate		-	2.00	-	0.50	-	
Ethyl oleate		-	-	0.50	-	0.50	
Cyclic silicon		-	-	1.00	1.00	-	
Vegetable squalane	Dimethyl silicone	0.50	-	1.50	-	0.50	
Vegetable squalane	Cyclic silicon	-	3.00	-	2.00	3.00	
Behenyl alcohol		5.00		3.00	2.00	-	
Steary alcohol	Jojoba oil	3.00	1.50	1.00	-	1.00	
Stearyl alcohol	Behenyl alcohol	1.00	-	0.50	1.00	2.00	
Carboxy vinyl polymer		1.00	2.00	1.50	0.50	-	
Xanthan gum	(Molecular weight 1,000,000 to	0.10	0.12	-	-	0.05	
Propyl paraben	Carboxymethyl cellulose Na	-	-	0.10	0.15	-	
Methyl paraben 0.30 0.30 0.30 0.30 0.30 0.30 Purified water bal. bal.	Xanthan gum	0.10	-	020	-	0.10	
Purified water		0.10	0.10	0.10	0.10	0.10	
Triisopropanol amine	Methyl paraben	0.30	0.30	0.30	0.30	0.30	
Glycolic acid	Purified water	bal.	bal.	bal.	bal.	bal.	
Glycolic acid	Triisopropanol amine	-	0.10	-	-	0.10	
Ethanol		-	-	1.00	0.50	-	
Perfume trace <		2.00	2.00	-	-	2.00	
Evaluation result Improvement effect on rough skin		trace		trace	trace		
Scalp moisturizing effect 0 0 0 Finished smoothness 0 0 x x	Evaluation result						
Scalp moisturizing effect 0 0 0 Finished smoothness 0 0 x x	Improvement effect on rough skin						
Finished smoothness							
			0		×	×	
	Finished non-stickiness		0	ō	×	×	

[0045]

[Table 5]

Lotion

Component	Embodiment					Comparative Example	
-	20	21	22	23	24	17	18
Piroctone olamine	0.20	-	0.15	-	0.10	-	-
Zinc pyrithione	-	0.10	-	0.30	-	-	-
Miconazole nitrate	-	0.05	-	-	0.10	-	-
Sodium lactate	-	-	-	-	-	1.00	0.50
Proline	-	-	-	-	-	0	1.50
Bentonite	-	-	-	0.30	-	0.30	-
Montmorillonite	-	-	-	-	0.30	-	-
Decaglyceryl monolaurate	0.20	0.10	-	-	-	-	0.10
Hexaglyceryl tristearate	-	0.10	-	-	-	0.10	-
Diglyceryl monoisostearate	0.10	-	-	-	-	0.10	0.20
Pyroglutamic acid isostearic							
acid polyoxyethylene	-	-	1.00	-	-	-	1.00
hydrogenated castor oil							
POE (20) sorbitan monooleate	-	-	-	-	0.50	0.80	0.50
POE (25) oleyl ether	0.80	-	-	0.50	0.50	-	0.30
POE (60) hydrogenated castor oil	-	1.00	-	0.50	-	0.50	-
Carboxy vinyl polymer (Molecular weight 1,000,000 to 1,500,000)		-	-	0.10	-	-	-
Alkyl-modified carboxy vinyl polymer	0.10	0.10	-	-	-	-	0.10
Hydroxy ethyl cellulose *1	-	-	-	-	0.10	0.10	-
Methyl paraben	0.30	0.30	0.30	0.30	0.30	0.30	0.30
Propyl paraben	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Triisopropanol amine	0.05	0.05	-	0.01	-	0.02	-
Purified water	bal.	bal.	bal.	bal.	bal.	bal.	bal.
Ethanol	12.00	10.00	3.00	5.00	1.00	3.00	2.00
Perfume	trace	trace	trace	trace	trace	trace	trace
Evaluation result		•	•		•		
Improvement effect on rough skin							
Scalp moisturizing effect	П	П	П	П	П	П	П
Birished and the con-				_	_		_

^{*1} HEC-600, manufactured by Daicel Chemical

Industries

Finished smoothness

Finished non-stickiness

/12

[0046]

[Table 6]

0

0

×

Powder spray type antiperspirant	Powder	spray	type	antipe:	rspirant
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	Component		iment	Comparative Example	
	*	25	26	19	20
	Piroctone olamine	0.20	-	-	-
	Zinc pyrithione	-	0.10	-	-
	Miconazole nitrate	-	0.05	-	-
lution	Sodium pyrrolidine carboxylic acid	-	1	0.30	-
ţ.	Hydroxypropyl chitosan	-	1	-	0.10
2	Chlorohydroxy aluminum	25.00	20.00	25.00	20.00
80	Isopropyl methyl phenol	-	0.10	-	0.10
Concentrate	Silicic acid anhydride (porous silica) *1	10.00	15.00	10.00	15.00
B	Magnesia silica	10.00	8.00	10.00	8.00
- Lue	Silicone complex powder *2	-	5.00	-	5.00
0	Eucalypt extract	2.00	1.00	2.00	1.00
Ö	Isopropyl myristate	bal.	bal.	bal.	bal.
-	Decamethyl cyclopentasiloxane	3.00	5.00	5.00	2.00
	Methyl polysiloxane	3.00	5.00	5.00	2.00
	Triisostearate POE glyceryl (20)	15.00	15.00	15.00	15.00
	L-menthol	0.20	-	0.20	-
	L-menthyl glyceryl ether	-	0.05	-	0.05
	Perfume	0.90	0.90	0.90	0.90
	centrate solution / liquefied petroleum ratio	10/90	10/90	10/90	10/90
Eva:	luation result				

improvement effect on rough skin		_ ×	
Scalp moisturizing effect		×	×
Finished smoothness	0		×
Finished non-stickiness			

^{*1} Sunsphere H-121 (Dokai Chemical Industries)

[0047]

[Table 7]

Embodiment 27: Lotion

Embodiment 2/: Lotion	
Component	Content (%)
Piroctone olamine	0.125
POE modified silicone *1	1.5
Trimethyl glycine	3.0
Glycerin	5.0
Dipropylene glycol	4.0
Durvillea	0.5
Rose water	0.20
Sodium alginate	0.02
Dipotassium glycyrrhizinate	0.2
Methyl paraben	0.5
Ethanol	6.0
Perfume	Trace
Purified water	Balance

^{*1} TSF 4445 Toshiba Silicone

^{*2} KSP-101 (Shin-Etsu Chemical Industries)

[0048]

[Table 8]

Embodiment 28: Cream

Binbodinere 20. Cicam	
Component	Content (%)
Piroctone olamine	0.25
POE (30) cholesteryl ether *2	1.5
POE (20) POP (6) decyl tetradecyl ether *3	0.3
Bentonite	1.00
Diglyceryl monoisostearate	0.50
Glyceryl monostearate	1.50
Liquid paraffin	10.00
Solid paraffin	1.50
Hydrogen-added soybean phospholipid	3.00
Cetyl palmitate	2.00
Cetostearyl alcohol	4.00
Trimethyl glycine	2.00
Glycerin	5.00
1,3-butylene glycol	2.00
Sodium alginate	0.10
Stearyl glycyrrhetinate	0.20
1,2-pentadiol	0.10
Methyl paraben	0.40
Sodium hydroxide	Trace
Perfume	Trace
Purified water	Balance

^{*2} CS-30 Japan Emulsion *3 PEN 4620 Nikko Chemicals

[0049]

[Table 9]

/13

Embodiment 29: Milky lotion	
Component	Content (%)
Piroctone olamine	0.05
POE (20) cholesteryl ether *4	1.00
POE POP modified silicone *5	0.30
Trimethyl glycine	1.00
Montmorillonite	1.00
Decaglyceryl monostearate	1.60
POE (20) sorbitan monooleate	3.00
Stearyl glycyrrhetinate	0.20
Dimethyl silicone	0.50
Vegetable squalane	5.00
Jojoba oil	3.00
Almond oil	0.50
Sunflower oil	0.50
Lecithin	0.80
Behenyl alcohol	1.00
Stearyl alcohol	1.00

Dipropylene glycol	5.00
Carboxy vinyl polymer	0.10
(molecular weight 1,000,000 to 1,500,000)	0.10
Xanthan gum	0.10
Propyl paraben	0.10
Methyl paraben	0.30
Vitamin E acetate	0.20
Purified water	Balance
Ethanol	3.00
Perfume	Trace

^{*4} CS-20 Japan Emulsion

[0050]

[Table 10]

Embodiment 30: Lotion	
Component	Content
	(%)
Piroctone olamine	0.10
POE modified silicone *1	1.50
Trimethyl glycine	0.50
Pyroglutamic acid isostearic acid polyoxyethylene hydrogenated	1.00
castor oil	1.00
Glycerin	6.00
1,3-butylene glycol	2.00
Xanthan gum	0.05
Methyl paraben	0.30
Propyl paraben	0.10
Allantoin	0.20
Ethanol	8.00
Potassium hydroxide	Trace
Perfume	Trace
Purified water	Balance

^{*1} TSF 4445 Toshiba Silicone

[0051] The cosmetic composition for the skin obtained in Embodiments 27 to 30 were novel cosmetics for the skin which increased the water content in the keratin of the dry scalp without causing problems for the hair, such as stickiness, and gradually improved the moisturizing ability of the scalp itself with continuous use.

^{*5} TSF 4452 Toshiba Silicone